510(k) Summary

Submitter's Name/Address

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Mark Littlefield

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Date of Preparation of this Summary:

April 2, 1998

Device Trade or Proprietary Name:

AST Activated

Device Common/Usual Name or Classification Name: Aspartate Aminotransferase

Activated

Classification Number/Class:

75CIT/Class II

This summary of 510(k) safety and effectiveness information is being submitted in accordance with the requirements of SMDA 1990 and 21 CFR 807.92.

The assigned 510(k) number is: $\frac{\cancel{K}98}{\cancel{1331}}$

Test Description:

Aspartate Aminotransferase Activated is an in vitro diagnostic assay for the quantitative determination of aspartate aminotransferase in human serum or plasma. The Aspartate Aminotransferase Activated assay is a clinical chemistry assay in which the aspartate aminotransferase catalyzes the transamination of aspartate and α-ketoglutarate to produce oxaloacetate and glutamate. Oxaloacetate is subsequently reduced to malate by malate dehydrogenase (MDH) with the concomitant oxidation of NADH to NAD. The rate of NADH oxidation is measured by 340 nm and is proportional to the AST activity of the sample. In addition, this reagent contains lactate dehydrogenase (LD) which consumes endogenous pyruvate during the first four minutes of the incubation period.

Substantial Equivalence:

The Aspartate Aminotransferase Activated assay is substantially equivalent to the Boehringer Mannheim®Aspartate Aminotransferase Activated assay on the Hitachi® 717 Analyzer (K861792) for the serum application.

These assays yield similar Performance Characteristics.

Similarities:

- Both assays are in vitro clinical chemistry methods.
- Both assays can be used for the quantitative determination of aspartate aminotransferase in serum or plasma.
- Both assays yield similar clinical results.

Differences:

• There is a minor difference between the assay range.

Intended Use:

The Aspartate Aminotransferase Activated assay is used for the quantitation of aspartate aminotransferase in human serum or plasma.

Performance Characteristics:

Comparative performance studies were conducted using the ALCYON[™] Analyzer. The Aspartate Aminotransferase assay method comparison yielded acceptable correlation with the Boehringer Mannheim Aspartate Aminotransferase Activated assay on the Hitachi 717 Analyzer for the serum application. For the serum application, the correlation coefficient = 0.9983, slope = 0.838, and Y-intercept = -0.764 U/L. Precision studies were conducted using the Aspartate Aminotransferase Activated assay. Within-run, between-run, and between-day studies were performed using two levels of control material. The total %CV for Level 1/Panel 111 is 5.3% and Level 2/Panel 112 is 2.4%. The Aspartate Aminotransferase Activated assay is linear up to 410 U/L. The limit of quantititation (sensitivity) of the

Aspartate Aminotransferase Activated assay is 9 U/L. These data demonstrate that the performance of the Aspartate Aminotransferase Activated assay is substantially equivalent to the performance of the Boehringer Mannheim Aspartate

Aminotransferase Activated assay on the Hitachi 717 Analyzer for the serum application.

Conclusion:

The Aspartate Aminotransferase Activated assay is substantially equivalent to the Boehringer Mannheim Aspartate Aminotransferase Activated assay on the Hitachi 717 Analyzer as demonstrated by results obtained in the studies.



Food and Drug Administration 2098 Gaither Road Rockville MD 20850

APR 23 1998

Mark Littlefield •Section Manager, Regulatory Affairs Abbott Laboratories 1920 Hurd Drive Irving, Texas 75038

Re: K981221

Aspartate Aminotransferase Activated

Regulatory Class: II Product Code: CIT Dated: April 2, 1998 Received: April 3, 1998

Dear Mr. Littlefield:

We have reviewed your Section 510(k) notification of intent to market the device referenced above and we have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (Premarket Approval), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 895. substantially equivalent determination assumes compliance with the Current Good Manufacturing Practice requirements, as set forth in the Quality System Regulation (QS) for Medical Devices: General regulation (21 CFR Part 820) and that, through periodic QS inspections, the Food and Drug Administration (FDA) will verify such assumptions. Failure to comply with the GMP regulation may result in regulatory action. In addition, FDA may publish further announcements concerning your device in the Federal Register. Please note: this response to your premarket notification submission does not affect any obligation you might have under sections 531 through 542 of the Act for devices under the Electronic Product Radiation Control provisions, or other Federal laws or regulations.

Under the Clinical Laboratory Improvement Amendments of 1988 (CLIA-88), this device may require a CLIA complexity categorization. To determine if it does, you should contact the Centers for Disease Control and Prevention (CDC) at (770) 488-7655.

This letter will allow you to begin marketing your device as described in your 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801 and additionally 809.10 for in vitro diagnostic devices), please contact the Office of Compliance at (301) 594-4588. Additionally, for questions on the promotion and advertising of your device, please contact the Office of Compliance at (301) 594-4639. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR 807.97). Other general information on your responsibilities under the Act may be obtained from the Division of Small Manufacturers Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its internet address "http://www.fda.gov/cdrh/dsmamain.html".

Sincerely yours,

Steven I. Gutman, M.D., M.B.A.
Director
Division of Clinical
Laboratory Devices
Office of Device Evaluation
Center for Devices and
Radiological Health

Enclosure

510(k) Number (if known):
Device Name: Aspartate Aminotransferase Activated
Indications For Use:
The Aspartate Aminotransferase Activated is used for the quantitation of aspartate aminotransferase (also known as a serum glutamic oxaloacetic transferase or SGOT) in human serum and plasma. Aspartate aminotransferase measurements are used in the diagnosis and treatment of certain types of liver and heart disease.
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Division Sign-Off) Sivision of Clinical Laboratory Devices 10(k) Number
(PLEASE DO NOT WRITE BELOW THIS LINE - CONTINUE ON ANOTHER PAGE IF NEEDED)
Concurrence of CDRH, Office of Device Evaluation (ODE) Prescription Use OR Over-The-Counter Use
(Per 21 CFR 801.109) (Optional Format 1-2-96)